

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-10, 14, 15, 17, 22, 24, 26, 28, 31, 33-35, 37, 38 and 41 without prejudice.

Please add new claims 44-54.

Please amend claims 11-13, 16, 18, 19, 20, 21, 23, 25, 27, 29, 36, 39, 40 and 42 as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-10 (Cancelled)

11. (Currently amended) A cDNA molecule ~~which encodes an isolated and purified protein having an amino acid sequence~~ which is at least 85% identical to ~~an amino acid sequence encoded by a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1-18~~ 1 and 11, wherein said polynucleotide is expressed at a higher level in metastatic breast cancer tissue relative to non-metastatic breast cancer tissue ~~percent identity is determined using a Smith-Waterman homology search algorithm using an affine gap search with a gap open penalty of 12 and a gap extension penalty of 1.~~

12. (Currently amended) The cDNA molecule of claim 11 ~~which encodes a protein having an amino acid sequence which is at least 85% identical to SEQ ID NO: 19~~ 95% identical to an amino acid sequence encoded by a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 and 11.

13. (Currently amended) A cDNA molecule which encodes at least 8 contiguous amino acids of a protein encoded by a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: ~~1-18~~ 1 and 11.

Claims 14-15 (Cancelled)

16. (Currently amended) A cDNA molecule comprising a polynucleotide selected from the group consisting of:
- (a) at least ~~12~~ 20 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11 1-18;
 - (b) at least 30 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11;
 - (c) at least 50 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11; and
 - (d) at least 75 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11.

Claim 17 (Cancelled)

18. (Currently amended) The cDNA molecule of claim ~~17~~ 11 which is at least 85% identical to the nucleotide sequence shown in SEQ ID NO: ~~18~~ 1.
19. (Currently amended) An isolated and purified subgenomic polynucleotide comprising a nucleotide segment selected from the group consisting of:
- (a) a segment of at least 30 contiguous nucleotides which hybridizes under stringent conditions to a nucleotide sequence selected from the group consisting of SEQ ID NOS: ~~1-18~~ 1 and 11; and
 - (b) a segment of at least 50 contiguous nucleotides which hybridizes under stringent conditions to a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11 ~~after washing with 0.2 X-SSC at 65°C,~~
- wherein said subgenomic polynucleotide is expressed at a higher level in metastatic breast cancer tissue relative to non-metastatic breast cancer tissue, wherein said stringent conditions are selected from the group consisting of 4X SSC at 65°C; 50% formamide, 4X SSC at 42°C; or 0.5X SSC, 0.1% SDS at 65°C.

20. (Currently amended) The isolated and purified subgenomic polynucleotide of claim 19 wherein the nucleotide segment hybridizes to a nucleotide sequence as shown in SEQ ID NO:~~18~~ 1.

21. (Currently amended) A construct comprising:
a promoter; and
a polynucleotide segment ~~encoding at least 8 contiguous amino acids of a protein encoded by a polynucleotide~~ comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS:~~1-18~~ 1 and 11, wherein the polynucleotide segment is located downstream from the promoter, wherein transcription of the polynucleotide segment initiates at the promoter.

Claim 22 (Cancelled)

23. (Currently amended) A host cell comprising a construct which comprises:
a promoter and;
a polynucleotide segment ~~encoding at least 8 contiguous amino acids of a protein encoded by a polynucleotide~~ comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: ~~1-18~~ 1 and 11.

Claim 24 (Cancelled)

25. (Currently amended) A recombinant host cell comprising a ~~new~~ transcription initiation unit, wherein the ~~new~~ transcription initiation unit comprises in 5' to 3' order:

- (a) an exogenous regulatory sequence;
- (b) an exogenous exon; and
- (c) a splice donor site,

wherein the ~~new~~ transcription initiation unit is located upstream of a coding sequence of a gene, wherein the coding sequence comprises a nucleotide sequence selected from the group

consisting of SEQ ID NOS: ~~1-18~~ 1 and 11, wherein the exogenous regulatory sequence controls transcription of the coding sequence of the gene.

Claim 26 (Cancelled)

27. (Currently amended) A polynucleotide probe comprising a detectable label and a polynucleotide selected from the group consisting of:

(a) at least ~~12~~ 20 contiguous nucleotides selected from the group consisting of SEQ ID NOS: 1 and 11 ~~1-18 and~~ (b) ~~a detectable label;~~

(b) at least 30 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11;

(c) at least 50 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11; and

(d) at least 75 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11.

Claim 28 (Cancelled)

29. (Currently amended) A method for identifying a metastatic tissue or metastatic potential of a tissue, comprising the step of:

measuring in a tissue sample an expression product of a gene comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: ~~1-4, 6-13, and 15-18~~ 1 and 11, wherein a tissue sample which expresses a product of a gene comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1, 4, and 11, 16, 17, and 18 ~~or which does not express a product of a gene comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: 2, 3, 6, 7, 8, 9, 10, 12, 13, and 15~~ is identified as metastatic or as having metastatic potential.

30. (Original) The method of claim 29 wherein the tissue sample is selected from the group consisting of breast and colon tissue.

Claim 31 (Cancelled)

32. (Original) The method of claim 29 wherein the expression product is mRNA.

Claims 33-35 (Cancelled)

36. (Currently amended) A set of primers for amplifying at least a portion of a gene having a coding sequence selected from the group consisting of the nucleotide sequences shown in SEQ ID NOS: 1-18 1 and 11.

Claims 37 and 38 (Cancelled)

39. (Currently amended) A polynucleotide array comprising at least one single-stranded polynucleotide which comprises at least 12 contiguous nucleotides of a nucleotide sequence selected from the group consisting of : SEQ ID NOS:1-18

(a) at least 20 contiguous nucleotides selected from the group consisting of SEQ ID NOS:1 and 11 1-18;

(b) at least 30 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS:1 and 11;

(c) at least 50 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS:1 and 11; and

(d) at least 75 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS:1 and 11.

40. (Currently amended) The polynucleotide array of claim 40 39 wherein the nucleotide polynucleotide comprises a sequence is selected from the group consisting of SEQ ID NOS: 1, 4, and 11 , 16, 17 ,and 18.

Claim 41 (Cancelled)

42. **(Currently amended)** A method of identifying a metastatic tissue or metastatic potential of a tissue, comprising the steps of:

contacting a tissue sample comprising single-stranded polynucleotide molecules with a polynucleotide array comprising at least one single-stranded polynucleotide probe, wherein the at least one single-stranded polynucleotide probe comprises at least 12 contiguous nucleotides of a nucleotide sequence selected from the group consisting of SEQ ID NOS: ~~1-4, 6-13, and 15-18~~ 1 and 11, wherein the tissue sample is suspected of being metastatic or of having metastatic potential;

detecting double-stranded polynucleotides bound to the polynucleotide array, wherein detection of a double-stranded polynucleotide comprising contiguous nucleotides selected from the group consisting of SEQ ID NOS: ~~1-4, 6-13, and 15-18~~ 1 and 11 ~~or lack of detection of a double-stranded polynucleotide comprising contiguous nucleotides selected from the group consisting of SEQ ID NOS: 2, 3, 6, 7, 8, 9, 10, 12, 13, and 15~~ identifies the tissue sample as metastatic or of having metastatic potential.

43. **(Original)** The method of claim 42 wherein the tissue sample is a breast or colon sample.

44. **(New)** The cDNA molecule of claim 13 which encodes at least 12 contiguous amino acids of a protein encoded by a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11.

45. **(New)** The cDNA molecule of claim 16 wherein the polynucleotide is expressed at a higher level in metastatic breast cancer tissue relative to non-metastatic breast cancer tissue.

46. **(New)** The cDNA molecule of claim 13 which encodes at least 12 contiguous amino acids of a protein encoded by a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11.

47. **(New)** The cDNA molecule of claim 11 which is at least 90% identical to a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 and 11.

48. (New) A polypeptide encoded by the cDNA molecule of any one of claim 11, 12 or 16.

49. (New) The polypeptide of claim 48 encoded by a polynucleotide comprising a nucleotide sequence selected from the group consisting of SEQ ID NOS: 1 and 11.

50. (New) A method of making a recombinant vector comprising inserting a cDNA molecule of claim 1 into a vector in operable linkage to a promoter.

51. (New) A recombinant vector produced according to the method of claim 50.

52. (New) A method of making a recombinant host cell comprising introducing the recombinant vector of claim 51 into a host cell.

53. (New) A recombinant host cell produced according to the method of claim 52.

54. (New) A method of producing a polypeptide comprising culturing the recombinant host cell of claim 53 under conditions such that the polypeptide is expressed, and recovering said polypeptide.